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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/598,395	06/20/2000	Michael J. Natan	PSU 00 2182A	6068

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EXAMINER

MORAN, MARJORIE A

ART UNIT PAPER NUMBER

1631

DATE MAILED: 03/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/598,395

Applicant(s)

NATAN ET AL.

Examiner

Marjorie A. Moran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12/6/05.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5, 7-10, 15 and 87-98 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-10, 15 and 87-98 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

All rejections and objections not reiterated below are hereby withdrawn. Claims 1-5, 7-10, 15, and 87-98 are pending.

***Claim Objections***

Claim 97 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 1. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). In the instant case, both claims are directed to a particle with identical physical limitations. The intended use recite in claim 97 does not physically limit the particle, thus the product of claim 97 appears to be the same as that recited in claim 1.

***Claim Rejections - 35 USC § 112, 1<sup>st</sup> para***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-5, 7-10, and 88-96 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a NEW MATTER rejection.

A particle containing "informational content on the composition of the particle" as newly recited in claims 1 and 88 is new matter.

In the response filed 12/6/05, applicant does not point to support for the newly recited limitation. The original claims did not recite any limitations with regard to informational content of particles. The originally filed specification, on page 5, lines 1-12, discloses that the specific nature of a "functional unit" *attached to* a particle may be encoded by the particle, but does not disclose that any information about the particle itself is contained by or within the particle. Similarly, page 5, line 28-page 6, line 1 discloses that the nature of a composition which interacts with analyte *bound to a particle* may be encoded by the particle; again, this is not a disclosure that the particle comprises any information with regard to its own composition.

***Claim Rejections - 35 USC § 112, 2<sup>nd</sup> para***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 88-96 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 88-96 are directed to a particle, but the preamble of claim 88 also recites a method. Claim 88 does not clearly recite that the method steps recited are those for producing a particle. It is unclear if applicant intends a "product-by-process" claim or

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actually intends a method claim. It is noted that the method steps recited do not actually limit the particle made, therefore the claim is interpreted as being directed to a particle 10-50 microns in length, 5 nm to 50 microns in width, with 50 or fewer segments wherein at least one segment has a length of at least 10 nm.

Claim 88 recites the limitation "the method" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim, therefore the claim is indefinite.

Claim 98 limits an electronic device *in which a particle CAN function* to be selected from a recited list. It is unclear if applicant intends the particle is to be limited to be attached to or part of one of the recited devices (i.e. wherein the claim is actually directed to a device which comprise the particle of claim 98) or is merely limiting an intended use of the particle. If the latter, then it is further unclear what further structural limitation of the product is actually intended by recitation of an intended use. See also the "claim objections" with regard to claim 97, above.

### ***Claim Rejections - 35 USC § 102***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-5, 7-10, 15, and 87-98 are rejected under 35 U.S.C. 102(a) as being anticipated by MARTIN et al. (IDS ref: Adv. Materials (8/19/1999) vol. 11, no. 12, pages 1021-1025).

MARTIN teaches "free-standing" colloidal nanorods comprising at least 3 segments of alternating gold and platinum (p. 1021) wherein the rod length is 200 nm-5 microns (Fig. 2), the width is 200-300 nm, and a segment length is about 1.3 microns (p. 1022). MARTIN teaches that the composition of his particles can be detected by microscopy or charge (pp. 1022-1023), thus claims 1-5, 7-8, 15, and 87 are anticipated. As MARTIN's particles contain charge, they are inherently "capable" of use in any kind of electronic device, therefore claims 97-98 are also anticipated. MARTIN teaches that his rods are assembled by electroplating (depositing) materials in layers into pores of a membrane, then releasing the rods into a suspension (Figure 1 and p. 1021), thus claims 88-96 are anticipated.

### ***Double Patenting***

Claims 1-5, 7-10 and 87 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 42 of copending Application No. 09/677,198. Although the conflicting claims are not identical, they are not patentably distinct from each other because the assembly of particles of claim 42 of '198 comprises at least one particle with dimensions falling within the ranges recited in claims 1-5, 7-10 and 87.

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Where instant claims 88-98 read on a particle only (see above), they are also provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 42 of copending Application No. 09/677,198 for the same reason as set forth above for claims 1-5, 7-10 and 87.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marjorie A. Moran whose telephone number is (571) 272-0720. The examiner can normally be reached on Mon,Wed: 7-1:30; Tue,Thur: 7:30-6; Fri 7-3:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ardin Marschel can be reached on (571)272-0718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marjorie A. Moran  
Primary Examiner  
Art Unit 1631

*Marjorie A. Moran*  
*3/6/06*